

## ABSTRACT

The invention provides an endoscope inserting direction detecting apparatus and method with which the direction of a lumen can be determined reliably despite a simple configuration. The endoscope inserting direction detecting apparatus includes a pixel sampling unit that samples a stated pixel value from each of domains constituting an endoscopic image received by an image input/output control circuit; a shape-of-range estimating unit that estimates the shape of a range within the endoscopic image according to the continuity of the distribution of the pixels indicating the stated pixel value; and an inserting direction determining unit that determines an inserting direction within a body cavity, in which an endoscope should be further inserted, on the basis of the estimated shape. The inserting direction is displayed together with the endoscopic image.